

SIPHAMIA WEBER, 1909 AND *SIPHAMIA PERMUTATA*
KLAUSEWITZ, 1966 (OSTEICHTHYES, PERCIFORMES):
PROPOSED CONSERVATION BY THE SUPPRESSION OF *BEANEA*
STEINDACHNER, 1902 AND *BEANEA TRIVITTATA*
STEINDACHNER, 1902. Z.N.(S.)2517

By John E. Randall (*Bishop Museum, Box 19000-A, Honolulu, Hawaii 96817, U.S.A.*), Ernest A. Lachner (*National Museum of Natural History, Washington, D.C. 20560, U.S.A.*) and Thomas H. Fraser (*Environmental Quality Laboratory, 1009 Tamiami Trail, Port Charlotte, Florida 33952, U.S.A.*)

Steindachner (1902, pp. 337–338) described *Beanea trivittata* as a new genus and species of the beryciform family HOLOCENTRIDAE, from a single 36 mm specimen taken in the Gulf of Suez, Red Sea, at Tor (El Tur) near the southern end of the Sinai Peninsula. The fish was collected by Dr Plate from among the spines of the echinoid *Diadema*.

2. No specimens have been reported under the name *Beanea trivittata* since the original description, in spite of extensive fish collecting in the Red Sea (Randall, 1983). The name has appeared only in compilations such as those of Jordan, 1917–1920; Fowler, 1956; Norman, 1957; Klauswitz, 1964 (in the reprint edition of Klunzinger, 1870–71) and Botros, 1971.

3. Woods (1955, p. 95) devoted a paragraph to *Beanea*. He repeated the meristic data given by Steindachner, noted the discrepancy of these counts from known holocentrid fishes, and added that *B. trivittata* 'may not even belong to the family Holocentridae'.

4. Randall, Shimizu and Yamakawa (1982, p. 2) also reiterated some of Steindachner's description of *B. trivittata* and stated, 'With the exception of IV anal spines (which we suspect is an error) these characters fit the APOGONIDAE not the HOLOCENTRIDAE. *Beanea* appears to represent an earlier name for *Siphamia* Weber (1909). We have asked Dr Rainer Hacker and Harald Ahnelt of the Naturhistorisches Museum in Vienna to examine the type of *Beanea trivittata* for us, but the specimen was not found.

5. In his *Checklist of the Fishes of the Red Sea*, Dor (1984, p. 72) included *Beanea trivittata* in the HOLOCENTRIDAE but as a doubtful taxon. He quoted Randall (*in litt.*), cited Randall, Shimizu and Yamakawa and added, 'I fully agree, the description of Steindachner fits an apogonid.'

6. The following characters given by Steindachner for *Beanea trivittata* clearly show that it is not a holocentrid but an apogonid: Dorsal rays VII–I,9; pelvic rays I,5; branchiostegal rays 7; lateral-line scales 25; scales above lateral line 1 1/2; all fin spines slender; first dorsal spine very short; third dorsal spine longest; head bones extremely delicate and thin; scales below lateral line smooth; three dark brown longitudinal bands on head and body.

7. Three genera of APOGONIDAE have species in the Red Sea with dark stripes: *Apogon*, *Cheilodipterus* and *Siphamia*. *Cheilodipterus* can be

quickly eliminated as a synonym of *Beanea* because it has VI dorsal spines, a body more elongate than *Myripristis* (Steindachner stated that *Beanea* has a body shape like this genus) and Red Sea species have more than three dark stripes. *Apogon* can also be eliminated on the basis of color, as no species have three dark stripes as described by Steindachner. *Siphamia* is represented in the Red Sea by a single species, *S. permutata* Klausowitz (1966, pp. 217–222) which has all the characters mentioned in paragraph 6 above except for 25 lateral-line scales (Klausowitz recorded 23). The three brown stripes on *S. permutata* are exactly as described by Steindachner for *B. trivittata*. Furthermore, Klausowitz (*op. cit.*) and Magnus (1976) have shown that this species hides among the spines of *Diadema setosum*.

8. *Siphamia* Weber (1909, p. 168) (type species, by monotypy, *Siphamia tubifer* Weber, 1909) is a very distinctive genus, all of the species of which possess an elongate luminous organ ventrally on the body which passes from the branchial region nearly to the caudal fin base. Lachner (*in* Schultz & collaborators, 1953) reviewed the genus, recognizing 13 species. Fraser (1972) wrote '*Siphamia* comprises a natural group, containing at least 18 nominal species. . .'. He summarized the osteology and other anatomical features of the genus and cited studies on systematics, commensalism, bioluminescence, etc.

9. Since there is no type specimen of *Beanea trivittata* the status of the nominal taxon is doubtful, although it is a probable synonym of *Siphamia permutata* Klausowitz, 1966. We recommend that the latter name be conserved and that *Beanea trivittata* Steindachner, 1902 be suppressed.

10. In view of the above we ask the International Commission on Zoological Nomenclature to:

- (1) use its plenary powers to suppress the generic name *Beanea* Steindachner, 1902 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) use its plenary powers to suppress the specific name *trivittata* Steindachner, 1902, as published in the binomen *Beanea trivittata*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (3) place on the Official List of Generic Names in Zoology the generic name *Siphamia* Weber, 1909 (gender: feminine), type species by monotypy, *Siphamia tubifer* Weber, 1909.
- (4) place on the Official List of Specific Names in Zoology the following specific names:
 - (a) *permutata* Klausowitz, 1966 as published in the binomen *Siphamia permutata*;
 - (b) *tubifer* Weber, 1909, as published in the binomen *Siphamia tubifer* (specific name of the type species of *Siphamia* Weber, 1909).
- (5) place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Beanea* Steindachner, 1902, as suppressed under the plenary powers in (1) above.

- (6) place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *trivittata*, as published in the binomen *Beanea trivittata*, and as suppressed under the plenary powers in (2) above.

REFERENCES

- BOTROS, G. A. 1971. Fishes of the Red Sea. *Oceanogr. mar. Biol. Ann. Rev.*, vol. 9, pp. 221–348.
- DOR, M. 1984. *CLOFRES: Checklist of the Fishes of the Red Sea*. The Israel Academy of Sciences and Humanities, Jerusalem, xxii + 437 pp.
- FOWLER, H. W. 1956. *Fishes of the Red Sea and southern Arabia*. Vol. 1. The Weizmann Science Press of Israel, Jerusalem, 240 pp.
- FRASER, T. H. 1972. Comparative osteology of the shallow water cardinal fishes [Perciformes: Apogonidae] with reference to the systematics and evolution of the family. *Ichthyol. Bull. J.L.B. Smith Inst. Ichthyol.*, Rhodes Univ. Grahamstown, no. 34, v + 105 pp.
- JORDAN, D. S. 1917–1920. *The Genera of Fishes and A Classification of Fishes*. Reprint edition, 1963, Stanford Univ. Press, Stanford, California, xvi + 800 pp.
- KLAUSEWITZ, W. 1964. Die Erforschung der Ichthyofauna des Roten Meeres. pp. i–xxxvi. In Klunzinger, C. B. 1870–1871, *Synopsis der Fische des Rothen Meeres*, reprint edition, 1964, J. Cramer, Weinheim.
- 1966. Fische aus dem Roten Meer. VII. *Siphamia permutata* n.sp. *Senckenberg biol.*, vol. 47(3), pp. 217–222.
- MAGNUS, D. B. E. 1967. Ecological and ethological studies and experiments on the echinoderms of the Red Sea. *Stud. trop. Oceanogr.*, vol. 5, pp. 635–664.
- NORMAN, J. R. 1957. *A Draft Synopsis of the Orders, Families and Genera of Recent Fishes and Fish-Like Vertebrates*. British Museum (Natural History), London, 649 pp.
- RANDALL, J. E. 1983. *Red Sea Reef Fishes*. IMMEL Publishing, London, 192 pp.
- , SHIMUZU, T. & YAMAKAWA, T. 1982. A revision of the holocentrid fish genus *Ostichthys*, with descriptions of four new species and a related new genus. *Jap. J. Ichthyol.*, vol. 29(1), pp. 1–26.
- SCHULTZ, L. P. (& collaborators). 1953. Fishes of the Marshall and Marianas Islands. *U.S. natl. Mus. Bull.*, 202, vol. 1, xxxii + 685 pp.
- STEINDACHNER, F. 1902. Über zwei neue Fischarten aus dem Rothen Meere. *Anz. Akad. Wiss. Wien*, vol. 39, pp. 336–338.
- WEBER, M. 1909. Diagnosen neuer Fische der Siboga-Expedition. *Notes Leyden Mus.*, vol. 31, pp. 143–169.
- WOODS, L. P. 1955. Western Atlantic species of the genus *Holocentrus*. *Fieldiana zool.*, vol. 37, pp. 91–119.